REMARKS

Claims 1-4 and 10-23 are pending in this application. Claims 5-9 are cancelled.

Claim Amendments

Please cancel original claims 5 through 9.

Please enter new claims 10 through 25.

The amendment to claim 1 was made to deter improper construction of the claim and does not alter the claim scope in any way.

The amendment to claim 2 was made to correct grammar and does not alter the claim scope in any way.

New claim 10 finds support throughout the specification, for example in paragraph 0028.

New claims 11-14 find support throughout the specification, for example in paragraph 0029.

New claim 15 finds support throughout the specification, for example in paragraphs 0023 and 0024.

New claim 16 finds support throughout the specification, for example in paragraphs 0023-0025.

New claim 17 finds support throughout the specification, for example in paragraphs 0015 and 0028.

New claims 18-21 find support throughout the specification, for example in paragraph 0029.

New claims 22 and 23 find support throughout the specification, for example in paragraph 0020.

New claim 24 finds support throughout the specification, for example in paragraphs 0023 and 0024.

New claim 25 finds support throughout the specification, for example in paragraphs 0023-0025.

Elections/Restrictions

Applicant affirms that an election to prosecute the invention of Group I, claims 1-4 was made with traverse.

Claim Rejections

35 U.S.C. § 102(a)

Claims 1-4 are rejected under 35 U.S.C. 102(a) as being anticipated by Pellecchia et al (Feb. 2002, J. Biomol. NMR). Pellecchia et al is described as disclosing the selective $^{13}C/^{1}H$ labeling of the Met, Ile and Thr residues of the enzyme DHPR ("[MIT]-DHPR") and the use of [MIT]-DHPR to generate NMR spectra in both the absence and presence of a ligand. Pellecchia et al is also described as disclosing that Trp residues could also be selectively labeled with $^{13}C/^{1}H$. The Applicant respectfully disagrees with this section 102 rejection as Pellecchia et al does not teach each element of the claims of this invention.

For a disclosure to be anticipatory the "identical invention must be shown in as complete detail as is contained in the ... claim" and the "elements must be arranged as required by the claim ...." MPEP 2131. That is, "a single reference must describe the claimed invention with sufficient precision and detail to establish that the subject matter existed in the prior art." *Verve, LLC v Crane Cams, Inc.*, 311 F.3d 1116, 1120 (Fed. Cir. 2002). Pellecchia et al does not describe every element contained in the claims of the present invention because the reference does not describe a selectively labeled target molecule that has at least a selectively labeled tryptophan moiety, and, therefore, the reference does not anticipate the claims.

Pellecchia et al does describe a selectively labeled [MIT]-DHPR protein and its examination by NMR, both in the absence and in the presence of a ligand, to demonstrate a novel structural determination method referred to as NMR-DOC (Nuclear Magnectic Resonance DOcking of Compounds). See, for example, pages 167-170. However, [MIT]-DHPR does not have a selectively labeled Trp residue as required by the claims of this invention. As pointed out above, only Met, Ile and Thr residues are selectively labeled.

In addition to the selectively labeled [MIT]-DHPR protein, Pellecchia et al describes the selectively labeled protein [MIT]-DOXPR and its use in a method called NMR-SOLVE (Structurally Oriented Library Valency Engineering). See, for example, pages 171-173.

Pellecchia et al reports that the Met, Ile and Thr amino acid labeling was chosen based on a survey that indicated four or five of these residues may be present in the NAD-binding site of the DOXPR protein. Then Pellecchia et al hypothesizes that "Selective side-chain $^{13}C/^{1}H$ labeling for the amino acids Val, Tyr, Phe, Trp and His could also be obtained (Goto and Kay, 2000)." See page 171, right-hand column. Simply hypothesizing that $^{13}C/^{1}H$ labeling for Trp could be obtain is not a disclosure of "each and every element as set forth in the claim," which is required for anticipation. MPEP 2131. Moreover, the implication that Goto and Kay describes selective labeling of Trp is erroneous. (A copy of Goto and Kay is attached as Exhibit 1.) In fact, there is no description of how to selectively label Trp in Goto and Kay or in Pellecchia et al. Thus, not only does Pellecchia et al fail to disclose a selectively labeled target molecule that has at least a selectively labeled tryptophan moiety, the reference, in combination with Goto and Kay, fails to provide a disclosure of how one of ordinary skill in the art could even make a selectively labeled target molecule that has at least a selectively labeled tryptophan moiety.

Included with this response is a declaration under Rule 132 in which Dr. Pellecchia, the principal author of Pellecchia et al, states that neither Pellecchia et al nor the combination of Pellecchia et al and Goto and Kay describes a selectively labeled target molecule that has at least a selectively labeled tryptophan moiety. Moreover, Dr. Pellecchia states that neither Pellecchia et al nor the combination of Pellecchia et al and Goto and Kay enables one of ordinary skill in the art to make and use a selectively labeled target molecule that has at least a selectively labeled tryptophan moiety.

Based on the arguments and evidence provided above, Applicant respectfully requests reconsideration and withdrawal of this rejection.

35 U.S.C. § 102(b)

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Fesik et al (U.S. Patent 5,698,401). Fesik et al is described as disclosing the labeling of stromelysin (and other proteins) with $^{15}N/^{1}H$ and obtaining NMR spectra before and after addition of a test compound. It is noted that stromelysin contains two tryptophan residues, which are considered to be labeled. The Applicant respectfully disagrees with this rejection as Fesik et al does not teach each element of any claim of this invention.

Fesik et al does not disclose a selectively labeled target molecule. Fesik et al describes uniformly ^{15}N/-labeled target molecules. *See* col. 11, line 56 and following. In addition, the Applicant also describes Fesik et al as reporting uniformly labeled target molecules in paragraph 0008 of the instant application. Uniform labeling is further described in paragraphs 0009 and 0010 of the application.

"Selectively labeled" is a term understood by those of ordinary skill in the art to mean the selective labeling of one or more amino acid residues of a polypeptide or protein, but not the labeling of all the amino acid residues of a polypeptide or protein. A polypeptide or protein with all of its residues labeled is understood by those of ordinary skill in the art to be uniformly labeled. The understanding of these two terms, selectively labeled and uniformly labeled, is evidenced by the references of record in this application and the references cited therein. For example, Pellecchia et al (*Nature Reviews*, 2002, 1, 211) describes the distinct concepts of selectively versus uniformly labeled molecules, for example in Box 2 on page 212. Goto and Kay, cited above, also describes the distinct concepts of selectively versus uniformly labeled molecules.

The use of the term "selectively labeled" in the present application is consistent with the use of the term by those of skill in the art. For example, the present application distinguishes the term "selectively labeled" from uniform labeling in paragraph 0011, where the labeling of specific amino acid moieties of a target molecule, rather than the entire backbone of a target molecule, is described. In fact, "selectively labeled" molecules, such as those of the present invention, are distinguished from the "uniformly labeled" molecules of Fesik et al in paragraph 0008 of the application.

The definition in paragraph 0021 that selective labeling is defined as labeling substantially every occurrence of at least one particular amino acid throughout a polypeptide sequence does not alter the meaning of the term selectively labeled; that is, this definition does not cause selectively labeled to mean uniformly labeled. This definition address a potential ambiguity that could arise where, for example, the particular residue to be selectively labeled occurred 30 times in the target molecule. The potential ambiguity would be whether selectively labeled meant that only one of the 30 residues would be labeled. This definition simply makes clear that in this hypothetical situation substantially every one of the 30 residues are labeled.

This definition can in no way be considered as altering the well-accepted meaning of the term "selectively labeled" to mean uniformly labeled.

Fesik et al only describes uniformly labeled molecules and does not disclose a selectively labeled target molecule as described in the present claims. Therefore, Fesik et al does not anticipate Applicant's claims and reconsideration and withdrawal of this rejection is respectfully requested.

CONCLUSION

For the foregoing reasons, it is respectfully submitted that the rejections set forth in the outstanding Office Action have been addressed and that the application is now in condition for allowance. Accordingly, Applicants request the expeditious allowance of the pending claims.

The undersigned has made a good faith effort to respond to all of the rejections in the case and to place the claims in condition for immediate allowance. Nevertheless, if any undeveloped issues remain or if any issues require clarification, the Examiner is respectfully requested to call the undersigned to discuss such issues.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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Dated: 13 December 2005

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